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Subject:  
Kalamazoo River Monthly Report (February 2007)

Dear Paul:

Attached is the 194<sup>th</sup> monthly progress report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site. This progress report is submitted as per paragraph 33 of the 1990 Administrative Order by Consent (Order No. DFO-ERD-91-001).

If you have any questions, please do not hesitate to contact us.

Sincerely,

ARCADIS of New York, Inc.

Douglas K. Cowin, P.G.  
Sr. Geologist II

Attachment

Copies:  
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INDUSTRIAL

Date:  
March 21, 2007

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Our ref:  
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**MONTHLY REPORT FOR THE ALLIED PAPER, INC./PORTAGE CREEK/  
KALAMAZOO RIVER SUPERFUND SITE**

**REPORT #194, FEBRUARY 2007**

**PREPARED BY ARCADIS BBL  
MARCH 21, 2007**

**ON BEHALF OF THE KALAMAZOO RIVER STUDY GROUP**

**SUBMITTED TO**

**PAUL T. BUCHOLTZ, PROJECT MANAGER  
REMEDIATION AND REDEVELOPMENT DIVISION**

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Monthly Report for the Allied Paper, Inc./Portage Creek/  
Kalamazoo River Superfund Site**

**REPORT #194, FEBRUARY 2007**

***I. Identification of Remedial Investigation and Feasibility Study (RI/FS) Activities***

**Task 1 — Description of the Current Situation**

- Complete.

**Task 2 — Plans and Management**

- On February 20, the Kalamazoo River Study Group (KRSG) provided the Michigan Department of Environmental Quality (MDEQ) with a request for information related to the cost recovery package for charges not covered by the 1990 Administrative Order by Consent.

**Task 3 — Site Investigation**

- On February 15, CDM forwarded to ARCADIS BBL a copy of its 2001 *Long Term Monitoring Sampling Plan* for the River.

**Task 4 — Preliminary Remedial Technologies**

- No activity.

**Task 5 — Site Investigation Analysis**

- No activity.

**Task 6 — RI/FS Reports, Risk Assessments and Records of Decision**

- The MDEQ will prepare the final Allied Paper, Inc. Operable Unit (Allied OU) Remedial Investigation (RI) Report.

**Task 7 — Community Relations Support**

- No activity.

***II. Status of Work at the Site***

**Task 1 — RI Activities**

- See Section I, Task 3, for information.

**Task 2 — Remedial Action Activities**

- No activity.

**Monthly Report for the Allied Paper, Inc./Portage Creek/  
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**Task 3 — Operation, Maintenance and Monitoring (OMM) Activities**

- On February 1, 7, 8 and 14, ARCADIS BBL forwarded to the MDEQ a spreadsheet and hydrographs presenting groundwater and river elevations related to the KHL-OU.
- On February 2, ARCADIS BBL transmitted to the City of Kalamazoo the monthly (January 2007) monitoring report regarding treated groundwater at the Allied OU.
- On February 2, ARCADIS BBL measured groundwater elevations at the KHL-OU in anticipation of groundwater sampling during the week of February 5.
- During the week of February 5, ARCADIS BBL performed the first quarter 2007 post-closure groundwater sampling event at the KHL-OU. Table A summarizes the samples collected.
- On February 5, 6, 7, 8 and 9, ARCADIS BBL measured groundwater elevations at the KHL-OU during groundwater sampling.
- On February 7, ARCADIS BBL forwarded to the MDEQ the updated KHL-OU post-closure groundwater analytical results summary tables.
- On February 8, the first quarter 2007 landfill gas monitoring event occurred at the KHL-OU. Table B summarizes the results.
- On February 19, Earth Tech collected samples of the influent and effluent at the Allied OU water treatment plant (WTP) for PCB analysis.
- On February 28, Earth Tech measured static water levels at the Allied OU.
- On February 28, ARCADIS BBL submitted to the MDEQ the sixtieth monthly water-elevation report for the Allied OU. This report covered activities during January 2007.
- In February, operation of the WTP continued at the Allied OU. A total of 592,581 gallons of water were treated and discharged to the Kalamazoo Water Reclamation Facility.
- In February, Earth Tech performed OMM activities at the Allied OU, including chlorinating the sumps, inspecting soil sedimentation and erosion control features, inspecting the site fence, and inspecting groundwater recovery system components.
- Georgia-Pacific awaits the MDEQ's comments on the July 31, 2006 *Work Plan for Additional Activities at the King Highway Landfill*.
- Georgia-Pacific awaits the MDEQ's approval of the January 2005 *Draft Notice of MDEQ-Approved Environmental Remediation for the Former Kalamazoo Mill Lagoons*.
- Georgia-Pacific awaits the analytical data package from Severn Trent Laboratories (STL) regarding the first quarter 2007 post-closure groundwater sampling event at the KHL-OU.

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- Georgia-Pacific awaits the results of the split samples collected by CDM during the first quarter 2007 post-closure groundwater sampling event at the KHL-OU.

**III. Percentages**

Task 1 — Description of the Current Situation is complete.

Task 2 — Plans and Management is approximately 90 percent complete.

Task 3 — Site Investigation is approximately 95 percent complete.

**IV. Problems**

- No problems were encountered.

**V. Actions Taken to Correct Problems**

- No activity.

**VI. Upcoming Activities**

- In March 2007, Earth Tech is scheduled to measure water levels at the Allied OU.
- In March 2007, Earth Tech is scheduled to collect samples of the influent and effluent at the Allied OU WTP for PCB analysis.
- In March 2007, Earth Tech will continue to perform OMM activities at the Allied OU.
- In March 2007, ARCADIS BBL is scheduled to submit to the MDEQ the sixty-first monthly water-elevation report for the Allied OU. This report will cover activities during February 2007.
- In March 2007, Terra is scheduled to perform the first quarter 2007 post-closure inspection at the KHL-OU.
- On March 2, 2007, ARCADIS BBL is scheduled to transmit to the city of Kalamazoo the monthly (February 2007) monitoring report regarding treated groundwater at the Allied OU.
- On March 6, 2007, STL is scheduled to forward the analytical data package regarding the first quarter 2007 post-closure groundwater sampling event at the KHL-OU to Georgia-Pacific.
- On March 16, 2007, ARCADIS BBL is scheduled to forward the 2007 first quarter post-closure landfill gas monitoring report to the MDEQ.
- Beginning on April 16, 2007, the KRSG will submit to the USEPA monthly reports for the SRI and Plainwell TCRA actions in separate monthly reports, as required by paragraph 19a of the

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Plainwell AOC and Section 7.1 of the SRI SOW. These topics will no longer be discussed in the monthly reports submitted under the 1990 Administrative Order by Consent for the Site. The first monthly reports submitted will cover February and March 2007.

- During the second quarter 2007, ARCADIS BBL is scheduled to conduct the 2007 second quarter post-closure groundwater sampling event at the KHL-OU. Water-level measurements will be collected prior to groundwater sampling. The second quarter landfill gas monitoring event is scheduled to occur at the same time.

***VII. Changes in Personnel***

- No changes.

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February 2007 Monthly Report**

**Table A — Summary of Groundwater Samples Collected during February 2007 at the KHL-OU**

<b>Date Sampled</b>	<b>BBL Sample ID (Corrected)</b>	<b>BBL Sample ID (Assigned in Field)</b>	<b>Well ID</b>	<b>CDM Sample ID</b>
2/5/2007	H85378	H85304	MW-7	(No split taken.)
2/6/2007	H85379	H85305	MW-1AR	(No split taken.)
	H85380	H85306	MW-2R	(No split taken.)
	H85381	H85307	MW-16A	OU3-MW16A-01
	H85382	H85308	MW-11RR	(No split taken.)
	H85383	H85309	Equipment Blank	(No split taken.)
2/7/2007	H85384 <sup>1</sup>	H85310	MW-12B	OU3-MW12B-01 [OU3-MW12B-02]
	H85385	H85311	MW-16B	(No split taken.)
	H85386	H85312	MW-12AR	OU3-MW12AR-01
	H85387	H85313	MW-13B	OU3-MW13B-01
2/8/2007	H85388 [H85389]	H85314 [H85315]	MW-8AR	OU3-MW8AR-01 [OU3-MW8AR-03]
	H85390	H85316	MW-13AR	OU3-MW13AR-01
	H85391	H85317	MW-8BR	(No split taken.)
2/9/2007	H85392	H85318	MW-14AR	OU3-MW14AR-01
	H85393 [H85394]	H85319 [H85320]	MW-15AR	OU3-MW15AR-01 [OU3-MW15AR-03]
	H85395	H85321	MW-3AR	OU3-MW3AR-01

**Notes:**

- <sup>1</sup> \_ MS/MSD analyzed for this sample.
1. ARCADIS BBL samples analyzed for total organic carbon , total polychlorinated biphenyl (PCB) compounds, semivolatile organic compounds (naphthalene, 4-methylphenol and phenol), acetone, chemical oxygen demand, nitrate, sulfate, alkalinity, total suspended solids; and total metals (barium, calcium, chromium, thallium, iron, sodium, and vanadium).
2. CDM samples analyzed for low-level PCB Aroclors.
3. Duplicate samples are presented in brackets.

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**Table B — Summary of February 2007 Landfill Gas Monitoring Results — KHL-OU**

<b>Sample Location</b>	<b>Methane CH<sub>4</sub> (%)</b>	<b>Carbon Dioxide CO<sub>2</sub> (%)</b>	<b>Oxygen O<sub>2</sub> (%)</b>	<b>Balance Gas (%)</b>
GW-1	54.9	44.5	0.0	0.6
GW-2	40.5	27.9	0.8	30.8
GW-3	34.8	9.6	2.8	52.8
GW-4	60.5	39.5	0.0	0.0
GW-5	49.9	3.3	0.0	46.8
GW-6	17.6	2.8	16.2	63.4
GW-7	0.0	0.1	20.8	79.1
GW-8	0.9	2.5	14.0	82.6
GW-9	0.0	0.7	19.9	79.4
GW-10	0.0	7.3	1.4	91.3
GW-11	0.0	0.2	20.7	79.1
GW-12	0.0	0.8	19.6	79.6
BH-201	0.0	0.1	21.1	78.8
BH-501	0.0	0.1	20.6	79.3
BH-502	0.0	0.1	20.6	79.3
V-1-1	23.5	17.7	11.8	47.0
V-2-1	6.4	3.3	18.5	71.8
V-2-2	18.6	8.5	15.1	57.8
V-3-1	5.9	1.7	19.4	73.0
V-4-1	0.0	0.0	20.8	79.2
V-4-2	0.0	0.0	20.8	79.2
V-4-3	0.1	0.2	20.0	79.7
V-4-4	0.0	0.1	20.8	79.1
V-4-5	0.0	0.0	20.8	79.2
V-4-6	0.0	0.0	20.8	79.2

**Notes:**

1. Landfill gas monitoring results provided by Golder Associates, Inc. (Golder) using a GEM™ 500 portable gas analyzer.
2. GW = Permanent gas probe.
3. BH = Temporary gas probe.
4. V = Gas vent.
5. Steve Evans (Golder), Mike Kohagen (ARCADIS BBL) and Keith Krawczyk (MDEQ) were also on site. GW-3 had high CH<sub>4</sub>, but Keith and Mike decided it was too risky to walk the snow-covered rocks along the river to bang bar outboard areas for migration. At GW-6, the valve was frozen and the valve/cap could not be removed so that location was bang barred directly next to the well.